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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/767,499 | 01/23/2004 | Alois Nichtawitz | COE-561 | 5968 |
| 30046 | 7590 | 10/28/2005 | EXAMINER | |
| HUMPHREYS ENGINEER CENTER SUPPORT ACTIVITY ATTN: CEHEC-OC 7701 TELEGRAPH ROAD ALEXANDRIA, VA 22315-3860 | | | HANAN, DEVIN J | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3745 | |

DATE MAILED: 10/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 10/767,499 | Applicant(s) NICHTAWITZ ET AL. | |
| | Examiner Devin Hanan | Art Unit 3745 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-53 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 42-53 is/are allowed.
- 6) ☐ Claim(s) 1,2,7-11,13,14,19-21,23,25,26,29,32,33,35 and 37 is/are rejected.
- 7) ☐ Claim(s) 3-6,10-12,15-18,22-24,27,28,30,31,34,36 and 38-41 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 7/13/2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Response to Arguments

Applicant's arguments, see remarks page 1, filed 7/13/2005, with respect to 112 rejections have been fully considered and are persuasive. The 35 USC 112 rejection of claims 9-21, 21-24 and 38 have been withdrawn.

Applicant's arguments with respect to claims 1, 2, 7, 25, 26 and 29 have been considered but are moot in view of the new ground(s) of rejection. Additionally, the applicant's arguments were valid, but not effective due the fact that the differences between the instant invention and the prior art were not brought about in the claims. Vanes from turbo machines are capable of performing the function of a stay vane in a hydraulic turbine.

Due to the discovery of new art, examiner regrettably withdraws the allowance of claims 8, 9, 11, 32, 33, 35 and 37.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 7-9, 11, 25, 26, 29, 32-33 and 35 are rejected under 35 U.S.C. 102(b) as being anticipated by Horvath et al. (U.S. Patent 6,045,325).

Horvath et al. discloses a stay vane (figure 4) for use with a turbine configuration having components, comprising:

a first structure (50), incorporating a leading edge (46) and a trailing edge (48) with respect to a fluid inlet to the turbine configuration, wherein the first structure supports said turbine configuration at least in part; and

a second structure (72) affixed to the trailing edge of said first structure, wherein the second structure improves hydraulic performance of said turbine configuration by complementing at least one component of said turbine configuration.

Regarding claim 2, Horvath et al. discloses a stay vane with at least one connector (col. 4 lines 1-4) for affixing said second structure to the trailing edge of said first structure.

Regarding claim 7, Horvath et al. discloses a stay vane in which the second structure is affixed to the trailing edge of said first structure by mechanical bonding (col. 4 lines 1-4).

Regarding claim 8, Horvath et al. discloses a stay vane with a complemented component that is a wicket gate (62).

Regarding claim 9, Horvath et al. discloses a stay vane with a second structure that touches the wicket gate eliminates the gap (figure 4).

Regarding claim 11, Horvath et al. discloses a stay vane with a second structure made of durable elastic material (col. 4 line 10).

Regarding claim 25, Horvath et al. discloses all of the claimed limitations as discussed in claim 1 above.

Regarding claim 26, Horvath et al. discloses all of the claimed limitations as discussed in claim 2 above.

Regarding claim 29, Horvath et al. discloses all of the claimed limitations as discussed in claim 7 above.

Regarding claim 32, Horvath et al. discloses all of the claimed limitations as discussed in claim 8 above.

Regarding claim 33, Horvath et al. discloses all of the claimed limitations as discussed in claim 9 above.

Regarding claim 35, Horvath et al. discloses all of the claimed limitations as discussed in claim 11 above.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 13, 14, 19-21, 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fisher et al. (U.S. Patent 6,254,339) in view of Horvath et al.

Fisher et al. discloses a wicket gate (28), a stay vane (30), a turbine runner (24), but does not disclose the second structure affixed to the trailing edge of the first structure.

However, Horvath teaches all of the claimed limitations as discussed in claim 1 above including the second structure affixed to the trailing edge of the first structure of the purpose of preventing flow through the gap between the stay vane and wicket gate (col. 2 lines 12-16).

Regarding claim 14, Horvath et al. teaches a stay vane with at least one connector (col. 4 lines 1-4) for affixing said second structure to the trailing edge of said first structure.

Regarding claim 19, Horvath et al. teaches a stay vane in which the second structure is affixed to the trailing edge of said first structure by mechanical bonding (col. 4 lines 1-4).

Regarding claim 20, Horvath et al. teaches a stay vane with a complemented component that is a wicket gate (62).

Regarding claim 21, Horvath et al. teaches a stay vane with a second structure that touches the wicket gate eliminates the gap between the second structure and the wicket gate (figure 4).

Regarding claim 23, Horvath et al. teaches a stay vane with a second structure made of durable elastic material (col. 4 line 10).

Since Fisher et al. and Horvath et al. both involve improving performance with wicket gates and stay vanes, Horvath would have been in the pertinent prior art of Fisher et al. It would have been obvious at the time the invention was made to one having ordinary skill in the art to use the second structure of Horvath et al. on the stay

vane of Fisher et al. in order to prevent flow through the gap between the stay vane and wicket gate (col. 2 lines 12-16).

Regarding claim 37, the modified apparatus of Fisher et al. discloses all of the claimed limitations of claim 21 above.

Allowable Subject Matter

Claims 42-53 are allowed.

Claims 3-6, 10-12, 15-18, 22-24, 27-28, 30-31, 34, 36 and 38-41 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Devin Hanan whose telephone number is 571-272-6089. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Look can be reached on 571-272-4820. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3745

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Devin Hanan
Patent Examiner
Art Unit 3745



EDWARD K. LOOK
SUPERVISORY PATENT EXAMINER
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10/17/05